

### Listing of the claims

71. (new) A plant growth affecting composition comprising an IAA derivative selected from a group consisting of mono-substituted IAA derivatives other than 5-Br-IAA, di-substituted IAA derivatives, multi-substituted IAA derivatives and mixtures thereof and further comprising at least one additional plant growth regulator, wherein said IAA derivative is in an amount and ratio to said additional plant growth regulator effective to increase plant growth.

72. (new) The composition according to claim 71, wherein the IAA derivative is a mono-substituted IAA derivative other than 5-Br-IAA.

73. (new) The composition according to claim 71, wherein the at least one additional plant growth regulator is selected from a group consisting of 2,4-D, BAP, ABA, zeatin riboside, kinetin, 2iP and Dicamba.

74. (new) The composition according to claim 71 further comprising a medium for culturing plant samples.

75. (new) The composition according to claim 74, wherein the IAA derivative is a mono-substituted IAA derivative other than 5-Br-IAA.

76. (new) The composition according to claim 74, wherein the at least one additional plant growth regulator is selected from a group consisting of 2,4-D, BAP, ABA, zeatin riboside, kinetin, 2iP and Dicamba.

77. (new) The composition of claim 71 wherein the ratio of said additional plant growth regulator to said IAA derivative is between about 50.0 and about 0.001.

78. (new) The composition of claim 71 wherein the ratio of said additional plant growth regulator to said IAA derivative is between about 5.0 and about 0.05.
79. (new) The composition of claim 71 wherein the ratio of said additional plant growth regulator to said IAA derivative is between about 2.0 and about 0.25.
80. (new) The composition of claim 71 wherein the concentration of said IAA derivative is between about 1  $\mu\text{g/mL}$  to about 100mg/mL.
81. (new) The composition of claim 71 wherein the concentration of said IAA derivative is between about 500  $\mu\text{g/mL}$  to about 10mg/mL.
82. (new) The composition of claim 71 wherein the concentration of said IAA derivative is between about 1 mg/mL to about 5mg/mL.
83. (new) A plant growth affecting composition formed by mixing an IAA derivative selected from a group consisting of mono-substituted IAA derivatives other than 5-Br-IAA, di-substituted IAA derivatives, multi-substituted IAA derivatives and mixtures thereof with at least one additional plant growth regulator, wherein said IAA derivative is in an amount and ratio to said additional plant growth regulator effective to increase plant growth.
84. (new) The composition according to claim 83, formed by mixing a mono-substituted IAA derivative other than 5-Br-IAA with at least one additional plant growth regulator.
85. (new) A combination comprising a plant sample capable of forming an embryogenic callus and a kit for the production of an embryogenic callus from a plant sample, said kit comprising:

at least one container; and  
a callus formation medium, wherein the callus formation medium comprises an IAA derivative selected from a group consisting of mono-substituted IAA derivatives, di-substituted IAA derivatives, multi-substituted IAA derivatives and mixtures thereof and further comprises one or more additional plant growth regulators.

86. (new) The combination according to claim 85, wherein said kit comprises at least one container adapted for membrane-based liquid cell culture.

87. (new) The combination according to claim 85 wherein said plant sample is a section of a mature plant embryo.

88. (new) The combination of claim 87 wherein said section is the middle section of a plant embryo, said section having part of the apical and root sections.

89. (new) The combination of claim 85 wherein said IAA derivative is 5-Br-IAA, and wherein said one or more additional plant growth regulators are selected from the group consisting of 2,4-D, BAP and ABA.

90. (new) The combination of claim 85 wherein said IAA derivative is 5-Br-IAA, and wherein said one or more additional plant growth regulators are selected from the group consisting of zeatin riboside, BAP and ABA.

91. (new) The combination of claim 85 wherein said IAA derivative is 5-Br-IAA, and wherein said one or more additional plant growth regulators are selected from the group consisting of 2,4-D, Dicamba, BAP and ABA.

92. (new) A kit for the production of an embryogenic callus from a plant sample comprising:

at least one container; and

a callus formation medium, wherein the callus formation medium comprises an IAA derivative selected from a group consisting of mono-substituted IAA derivatives other than 5-Br-IAA, di-substituted IAA derivatives, multi-substituted IAA derivatives and mixtures thereof and further comprises one or more additional plant growth regulators, wherein said IAA derivative is in an amount and ratio to said additional plant growth regulator effective to stimulate formation of an embryogenic callus.

93. (new) A combination comprising a transgenic plant sample and a kit for the regeneration of a plant sample, said kit comprising:

at least one container; and

a regeneration medium, wherein the regeneration medium comprises an IAA derivative selected from a group consisting of mono-substituted IAA derivatives, di-substituted IAA derivatives, multi-substituted IAA derivatives, and mixtures thereof and further comprises one or more additional plant growth regulators.

94. (new) The combination according to claim 93, wherein said kit comprises at least one container adapted for membrane-based liquid cell culture.

95. (new) The combination according to claim 93 wherein IAA derivative is selected from a group consisting of mono-substituted IAA derivatives other than 5-Br-IAA.

96. (new) The combination according to claim 93, wherein said kit further comprises a callus formation medium.

97. (new) The combination according to claim 96 wherein said callus formation medium comprises an IAA derivative selected from the group consisting of mono-substituted IAA derivative, di-substituted IAA derivatives,

multi-substituted IAA derivatives, and mixtures thereof and further comprises one or more additional plant growth regulators.

98. (new) The combination of claim 97 wherein said IAA comprises 5-Br-IAA, and wherein said one or more additional plant growth factors are selected from the group consisting of zeatin riboside, BAP, kinetin, 2iP and ABA.

99. (new) The combination of claim 98 wherein said one or more additional plant growth factors are selected from the group consisting of zeatin riboside, BAP and ABA.

100. (new) The combination of claim 97 wherein the IAA derivative for both the callus formation medium and the regeneration medium is 5-Br-IAA.

101. (new) The combination of claim 100 wherein said one or more additional plant growth regulators are selected from the group consisting of 2,4-D, BAP and ABA.

102. (new) The combination of claim 100 wherein said one or more additional plant growth regulators are selected from the group consisting of zeatin riboside and ABA.

103. (new) The kit of claim 97 further comprising a callus amplification medium which comprises 2,4-D.